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Job No.: CTCE/BBMP/W.No.17/GV/CEMENT/2014-15 Date: 14.04.2014

TEST REPORT

CLIENT	:	**Asst. Executive Engineer,** Yeshwanthpura Sub Division, BBMP, Bangalore.
AGENCY	:	**Mr. G. Vasu,** Contractor, Bangalore.
NAME OF THE WORK	:	Improvements to drain at 2nd main of Muthyalanagara in ward No.17, BBMP, Bangalore.
REFERENCE	:	EE/RRND/Wo.No/306/2013-14 Dated: 26.02.2014
SAMPLE ID	:	CEMENT
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 1989-2013
1	Standard Consistency	IS-4031 (Part -4)	29.00 %	-
2	a) Initial Setting Time	IS-4031 (Part -5)	165 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	490 Minutes	Not More than 600 Minutes
3	Soundness by the Le-Chatelier method	IS-4031 (Part 3)	1 mm	Not more than 10 mm

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Job No.: CTCE/BBMP/W.No.17/GV/SAND/2014-15 : 14.04.2014

TEST REPORT ON FINE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Yeshwanthpura Sub Division, BBMP, Bangalore. .

Agency : **Mr. G. Vasu,** Contractor, Bangalore.

Name of Work : Improvements to drain at 2nd main of Muthyalanagara in ward No.17, BBMP, Bangalore.

Reference : EE/RRND/Wo.No/306/2013-14 Dated: 26.02.2014

Date of Testing : 14.04.2014

Material : Sand Total Wt. of Aggregates in gms **2000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	52	2.60	2.60	97.4	90-100
2.36	259	12.95	15.55	84.5	75-100
1.18	415	20.75	36.30	63.7	55-90
600 Micron	516	25.80	62.10	37.9	35-59
300 Micron	430	21.50	83.60	16.4	8-30
150 Micron	220	11.00	94.60	5.4	0-10

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Job No.: CTCE/BBMP/W.No.17/GV/AGG/2014-15 : 14.04.2014

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Yeshwanthpura Sub Division, BBMP, Bangalore. .

Agency : **Mr. G. Vasu,** Contractor, Bangalore.

Name of Work : Improvements to drain at 2nd main of Muthyalanagara in ward No.17, BBMP, Bangalore.

Reference : EE/RRND/Wo.No/306/2013-14 Dated: 26.02.2014

Date of Testing : 14.04.2014

Material : 40mm Aggregates

Total Wt. of Aggregates in gms **25500**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
80	0	0	0	100	100
40	925	3.63	3.63	96.37	95-100
20	15565	61.04	64.67	35.33	30-70
10	4000	15.69	80.35	19.65	10-35
4.75	3965	15.55	95.90	4.10	0-5

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Job No.: CTCE/BBMP/W.No.17/GV/CC Blocks/2014-15 18.04.2014

TEST REPORT ON CEMENT CONCRETE BLOCKS

Client : **Asst. Executive Engineer,** Yeshwanthpura Sub Division, BBMP, Bangalore.

Agency : **Mr. G. Vasu,** Contractor, Bangalore.

Name of work : Improvements to drain at 2nd main of Muthyalanagara in ward No.17, BBMP, Bangalore.

Reference : EE/RRND/Wo.No/306/2013-14 Dated: 26.02.2014

Size of Block : 400 mm x 200 mm x 200 mm

Cross Sectional Area : 80000 mm^2

Technical Reference : IS: 2185 (Part 1) - 2005

No. of Blocks Tested : 03

Sl.No.	Date of Sampling	Date of testing	Failure load (KN)	Compressive strength	Minimum Compressive Strength of Individual Units
			kN	N/mm^2	N/mm^2
1	16.04.2014	18.04.2014	260.2	3.25	3.2
2	16.04.2014	18.04.2014	265.3	3.32	
3	16.04.2014	18.04.2014	270.3	3.38	

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Job No.: CTCE/BBMP/W.No.17/GV/Kerb stone/2014-15 12.05.2014

TEST REPORT ON CONCRETE CORE (KERB STONE)

Name of Client	:	**Asst. Executive Engineer,** Yeshwanthpura Sub Division, BBMP, Bangalore.
Name of Agency	:	**Mr. G. Vasu,** Contractor, Bangalore.
Name of work	:	Improvements to drain at 2nd main of Muthyalanagara in ward No.17, BBMP, Bangalore.
Reference	:	EE/RRND/Wo.No/306/2013-14 Dated: 26.02.2014
Techinical Reference	:	IS:516-1959 (Reaffirmed 2008), SP-24:1983.
Sample ID	:	Kerb Stone
Date of Testing	:	12.05.2014

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	50.00	79.00	0.388	2501.35	1.58	0.955	25.10	12.78	13.81	13.18	16.48
2	50.00	80.00	0.396	2521.01	1.60	0.965	25.90	13.19	14.25	13.75	17.18
3	50.00	81.00	0.402	2527.62	1.62	0.960	25.55	13.01	14.05	13.49	16.86

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Job No.: CTCE/BBMP/W.No.17/GV/CUBE/2014-15 26.05.2014

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : **Asst. Executive Engineer,** Yeshwanthpura Sub Division, BBMP, Bangalore.

Agency : **Mr. G. Vasu,** Contractor, Bangalore.

Name of the work : Improvements to drain at 2nd main of Muthyalanagara in ward No.17, BBMP, Bangalore.

Reference : EE/RRND/Wo.No/306/2013-14 Dated: 26.02.2014

Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{15}

Compressive Strength as on : 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	28.04.2014	26.05.2014	8.125	355.2	15.79
2	28.04.2014	26.05.2014	8.236	360.2	16.01
3	28.04.2014	26.05.2014	8.342	372.3	16.55

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Job No.: CTCE/BBMP/W.No.17/GV/CUBE/2014-15 27.05.2014

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : **Asst. Executive Engineer,** Yeshwanthpura Sub Division, BBMP, Bangalore.

Agency : **Mr. G. Vasu,** Contractor, Bangalore.

Name of the work : Improvements to drain at 2nd main of Muthyalanagara in ward No.17, BBMP, Bangalore.

Reference : EE/RRND/Wo.No/306/2013-14 Dated: 26.02.2014

Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{15}

Compressive Strength as on : 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	29.04.2014	27.05.2014	8.198	345.5	15.36
2	29.04.2014	27.05.2014	8.290	360.3	16.01
3	29.04.2014	27.05.2014	8.380	370.6	16.47

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Job No.: CTCE/BBMP/W.No.17/GV/CUBE/2014-15 28.05.2014

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : **Asst. Executive Engineer,** Yeshwanthpura Sub Division, BBMP, Bangalore.

Agency : **Mr. G. Vasu,** Contractor, Bangalore.

Name of the work : Improvements to drain at 2nd main of Muthyalanagara in ward No.17, BBMP, Bangalore.

Reference : EE/RRND/Wo.No/306/2013-14 Dated: 26.02.2014

Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{15}

Compressive Strength as on : 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	30.04.2014	28.05.2014	8.475	379.6	16.87
2	30.04.2014	28.05.2014	8.339	365.5	16.24
3	30.04.2014	28.05.2014	8.290	350.5	15.58

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Job No.: CTCE/BBMP/W.No.17/GV/CUBE/2014-15 29.05.2014

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : **Asst. Executive Engineer,** Yeshwanthpura Sub Division, BBMP, Bangalore.

Agency : **Mr. G. Vasu,** Contractor, Bangalore.

Name of the work : Improvements to drain at 2nd main of Muthyalanagara in ward No.17, BBMP, Bangalore.

Reference : EE/RRND/Wo.No/306/2013-14 Dated: 26.02.2014

Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{15}

Compressive Strength as on : 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	01.05.2014	29.05.2014	8.110	355.6	15.80
2	01.05.2014	29.05.2014	8.295	369.8	16.44
3	01.05.2014	29.05.2014	8.380	379.6	16.87

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Regarding Quality Control Certificate

NAME OF WORK : Improvements to drain at 2nd main of Muthyalanagara in ward no 17

JOB NO : 017-14-000035

WORK ORDER NO : EE/RRN/Wo.No/306/2013-14, dated: 26-02-14.

On verification of Quality control test reports available in the file and also from inspection report of the Technical Team deployed for this purpose generally the work executed is satisfactory compliance of Quality Control test reports as per MORT & H this stage is not feasible since the work was executed 2 (two) years back.

Executive Engineer
Rajarajeshwari Nagara Division
BBMP, Bangalore